

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application;

1. and 2. (Cancelled)

3. (Currently Amended) A receiver for receiving a signal transmitted over a communication channel, the receiver comprising:

a channel state predictor for receiving channel state information about a state of the communication channel and producing information about future conditions of the communication channel;

a block length selector for receiving the information about future conditions of the communication channel, and for selecting block lengths that are selected from a group of block lengths having an integral multiple relationship, to produce a schedule of block lengths;

an interface for receiving the signal from the communication channel; ~~and~~

a decoder for receiving the signal from the interface and the schedule of block lengths produced by the block length selector, and for decoding the signal using the schedule of block lengths-; and

a channel state estimator for assessing the state of the channel based on the signal from the communication channel, and for producing the channel state information accordingly.

4. (Canceled)

5. (Cancelled)

6. (Previously Presented) A communication system for performing transmission and reception of a signal over a communication channel, the communication system comprising:

a channel state estimator for assessing a state of the communication channel, and for producing channel state information accordingly;

a channel state predictor for receiving the channel state information about a state of the information channel and producing information about future conditions of the communication channel;

a block length selector for receiving the information about future conditions of the communication channel from the channel state predictor, and for selecting block lengths that are selected from a group of block lengths having an integral multiple relationship, to produce a schedule of block lengths;

a transmitter including:

an encoder for receiving information from a source, for receiving the schedule of block lengths from the block length selector, and for encoding the information from the source into an encoded signal using the schedule of block lengths; and

a transmission interface for transmitting the encoded signal over the communication channel; and

a receiver including:

a reception interface for receiving the encoded signal from the transmission interface over the communication channel; and

a decoder for receiving the encoded signal from the reception interface, for receiving the schedule of block lengths produced by the block length selector, and for decoding the signal using the schedule of block lengths,

wherein the channel state estimator is provided in the receiver, and the channel state predictor and the block length selector are provided in both the transmitter and the receiver, the channel state estimator sending the channel state information to the channel state predictor in the transmitter over a feedback channel, and sending the channel state information to the channel state predictor in the receiver.

7. (Cancelled)

8. (Cancelled)

9. (Previously Presented) The communication system as claimed in claim 6, wherein the block length selector assembles the block lengths in the schedule of block lengths in frames, each frame totaling a maximum block length.

10. (Cancelled)

11. (Currently Amended) A method of receiving a signal transmitted over a communication channel, comprising the steps of:

receiving channel state information about a state of the communication channel;

selecting block lengths that are dependent on the channel state information and that are selected from a group of block lengths having an integral multiple relationship, to produce a schedule of block lengths;

receiving the signal from the communication channel; ~~and~~

decoding the signal using the schedule of block lengths; ~~;~~

and

assessing the state of the channel based on the signal from the communication channel, and producing the channel state information accordingly.

12. (Cancelled)